

SERIAL DIGITAL COMMUNICATION SYSTEM AND METHODABSTRACT OF THE DISCLOSURE

A serial digital communication system includes a master device and a plurality of slave devices connected serially between the master device's output and input -
5 thereby forming a closed chain. Each slave device transmits a predetermined number of PWM pulses to the device following it in the chain upon receipt of an end-of-transmission (EOT) signal from the device preceding it in the chain, and transmits an EOT signal when the
10 transmission of its PWM pulses is completed. The master device transmits an EOT signal to initiate the transmission of PWM pulses from each slave device. Each slave device passively buffers PWM pulses received from the preceding device, such that PWM pulses are transmitted in one
15 direction sequentially to the input of the master device via the intervening slave device.